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09/924,832	08/08/2001	Toshifumi Togashi	2271/65666	2871

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EXAMINER

SCHLAK, DANIEL K

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,832

Applicant(s)

TOGASHI, TOSHIFUMI

Examiner

Daniel K Schlak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 25-52 and 54-64 is/are rejected.
- 7) ☒ Claim(s) 24 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 10/20/03 has been considered by the Examiner. The Examiner has lined through the citation of US document 5,058,877 because it was already cited in paper #7, and the Examiner wishes that it not be cited twice in the printed patent document.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing or post office address of each inventor.

A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Applicant indicated in the most recent response that an Application Data Sheet was being transmitted along with, but no such data sheet was found to be of the submitted papers. Please re-submit the Application Data Sheet.

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Specification

The objection to the title has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3, 5, 9, 10-21, 23, 30-32, 34, 38, 39-50, 52, 59, 60, 61, 62, 63, and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,535,981 to Watanabe et al.

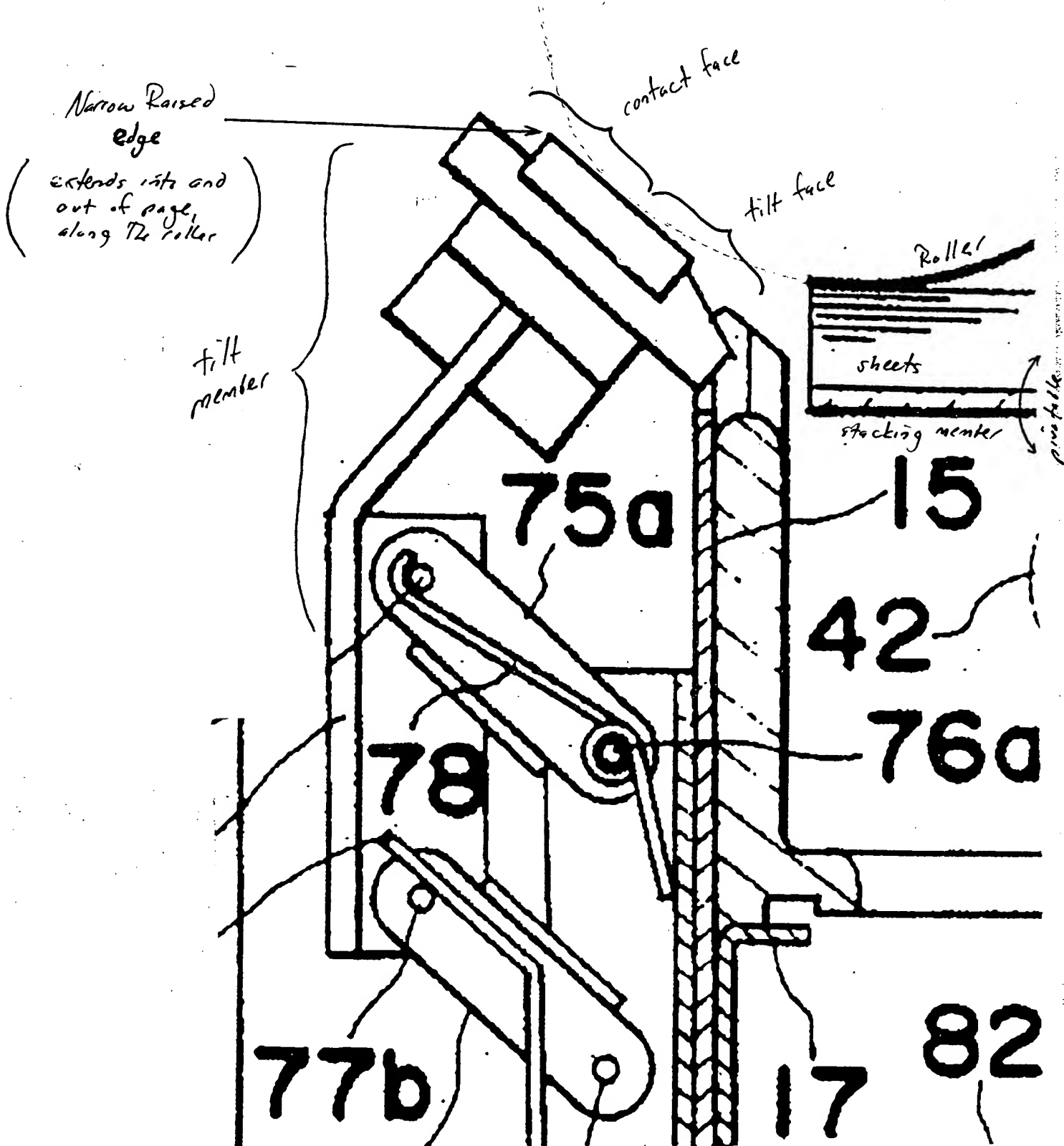
Applicant is specifically directed to figures 2 and 3 of Watanabe, and also column 5, which describes the lever mechanism for changing the force of on the "tilt member".

Watanabe teaches a sheet feeder for sheets stacked on a sheet material stacking member one by one from the topmost sheet for feeding each of the sheet materials, the feeder comprising a roller (2) and a tilt member (71) which has a tilt face (72), wherein the roller has a front end running against the tilt face, said tilt member having a contact face (top of 72, indicated by arrow 70) in contact with said sheet feed roller in the shape of an edge along an axial direction of the sheet feed roller.

The tilt member, tilt face, and contact face all comprise portions which can be interpreted as "edges".

To assist Applicant in understanding the nature of the rejection, as it was alleged in the arguments that the foregoing interpretation was "unclear", the Examiner has attached an enlarged copy of Figure 3 of Watanabe to the following page. In it, a few items have been deleted to allow for convenient labeling of pertinent features of the tilt member, and are as shown on the following page in the form of tilt face and contact face in the form of a narrow raised edge. Of course, it is clearly "raised", and as for being "narrow", although it may not be of the narrowness of a sewing needle, it is certainly more narrow than the roller itself, and by all means is infinitely more narrow than a truck tire. Applicant is reminded that "narrow" is a relative term, just as "thin" or "fat" or "tall", it does not distinctly describe the edge in a way that would preclude the interpretation above. The tilt member is in pressing contact with the roller for "pivotal" movement with respect thereto. Watanabe teaches means for advancing and retracting said tilt member (see column 5, lines 18-50). The length of the tilt member's contact face is less than the axial length of the feed roller. The distance between the contact faces between the roller and the tilt face and the roller and the top-most paper is approximately 2-6mm, which is clear by the proportions of figure 3.

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Thin elastic member (91a) is provided downstream of the contact areas. The elastic member is lined up with the center of the roller. The thin elastic member crosses a tangential direction of the contact area, and includes a *bend* which hooks "toward" the roller at a rear end. A second elastic member (4) is shown in figure 3, which with the other elastic member (91a) are placed on "both sides" of the roller.

The elastic member crosses the tangential direction at an angle between 20 and 60 degrees – approximately 30 degrees. The elastic member is a friction member.

Watanabe teaches a pressure lever (81) having a free end in contact with the stacking member, which has a sensing lever (40) which is "coaxial" (do they have an axis? Such has not been recited in the claims anyway) with the pressure lever for pivotal movement associated with insertion-removal of a cassette having a stacking member, and a plurality of elastic members (any solid object is elastic to some degree) (42 and 82) disposed between the sensing lever and the pressure lever. The pressure lever is pivotally mounted in association with the sensing lever such that when an angle of the pressure lever to said sensing lever is greater than a predetermined angle.

Figures 2 and 3, and column 5, clearly teach the means for adjusting an urging force of the compression spring (78) on the tilt member.

Watanabe teaches an image forming mechanism.

Watanabe's "means for coming in pressing contact" with the roller is equivalent to that shown in at least several of the several embodiments of the instant application.

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Watanabe teaches a "pressing contact" that is edge-shaped (already described) and along a line parallel to the feed roller axis. Via the apparatus disclosure, and through further description of the functioning of the device shown in figures 2 and 3, Watanabe recites the method of claims 62 and 64.

Claims 1-3, 5, 9-22, 25-32, 34, 38-51, and 54-64 rejected under 35 U.S.C. 102(b) as being anticipated by US 5,996,989 to Cahill et al.

Cahill teaches a sheet feeder for sheets stacked on a sheet material stacking member one by one from the topmost sheet for feeding each of the sheet materials, the feeder comprising a roller (24) and a tilt member (55) which has a tilt face, wherein the roller has a front end running against the tilt face, said tilt member having a contact face (indicated by arrow 56) in contact with said sheet feed roller in the shape of a narrow raised edge along an axial direction of the sheet feed roller. The tilt member is in pressing contact with the roller for "pivotal" movement with respect thereto.

The Examiner believes that the discussion of Watanabe's tilt member will suffice in explaining the nature of the rejection under Cahill as well, and will adequately serve in refuting the arguments that Cahill teaches no contact face in the shape of an edge. As the "friction pad" of Cahill is similar to that of Watanabe, Applicant should naturally be able to extrapolate the interpretation of Watanabe, and realize that the Examiner has named the frontal (upstream) portion of Cahill's friction pad the "tilt face" and the rear portion the "contact face", and the extreme downstream portion of this contact face is in the form of a narrow raised edge.

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Cahill teaches means for advancing and retracting said tilt member. The length of the tilt member's contact face is less than the axial length of the feed roller. The distance between the contact faces between the roller and the tilt face and the roller and the top-most paper is approximately 2-6mm, which is clear by the proportions of figure 3 (particularly because the contact point between the roller and the paper will not be constant, and clearly will reside within 6mm at least some of the time.

Thin elastic member (72) is provided downstream of the contact areas. The elastic member is lined up with the center of the roller. The thin elastic member crosses a tangential direction of the contact area, and includes a *bend* which hooks "toward" the roller at a rear end (considering it is completely circular, the hook should not be hard to envision. A second elastic member (71) is shown in figure 3, which with the other elastic member are placed on "both sides" of the roller.

The elastic member crosses the tangential direction at an angle between 20 and 60 degrees – approximately 30 degrees. The elastic member is a friction member.

Cahill teaches a pressure lever (70) having a free end in contact with the stacking member, which has a sensing lever (45) which is "coaxial" (do they have an axis? Such has not been recited in the claims anyway) with the pressure lever for pivotal movement associated with insertion-removal of a cassette having a stacking member, and an elastic member (63) disposed between the sensing lever and the pressure lever. The pressure lever is pivotally mounted in association with the sensing lever such that when an angle of the pressure lever to said sensing lever is greater

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than a predetermined angle. When the sensing lever is pushed, the spring bearer acts on the spring to change the force on the tilt member.

Figure 3 clearly teaches the means for adjusting an urging force of the compression spring (57) on the tilt member.

Cahill teaches an image forming mechanism.

Cahill's "means for coming in pressing contact" with the roller is equivalent to that shown in at least several of the several embodiments of the instant application.

Cahill teaches a "pressing contact" that is edge-shaped (already described) and along a line parallel to the feed roller axis. Via the apparatus disclosure, and through further description of the functioning of the device shown in figure 3, Cahill recites the method of claims 62 and 64.

Cahill further teaches 1st and 2nd Cams (24, 26, 23). The first cam separates the stacking member from the roller. The stacking member has presser ribs. The 2nd cams (27, 26) separate the tilt member from the roller. Figure 4 gives a full description of the cams, the stacking member, the ribs, and tilt member as they interrelate to anticipate claims 25-29 and 54-58.

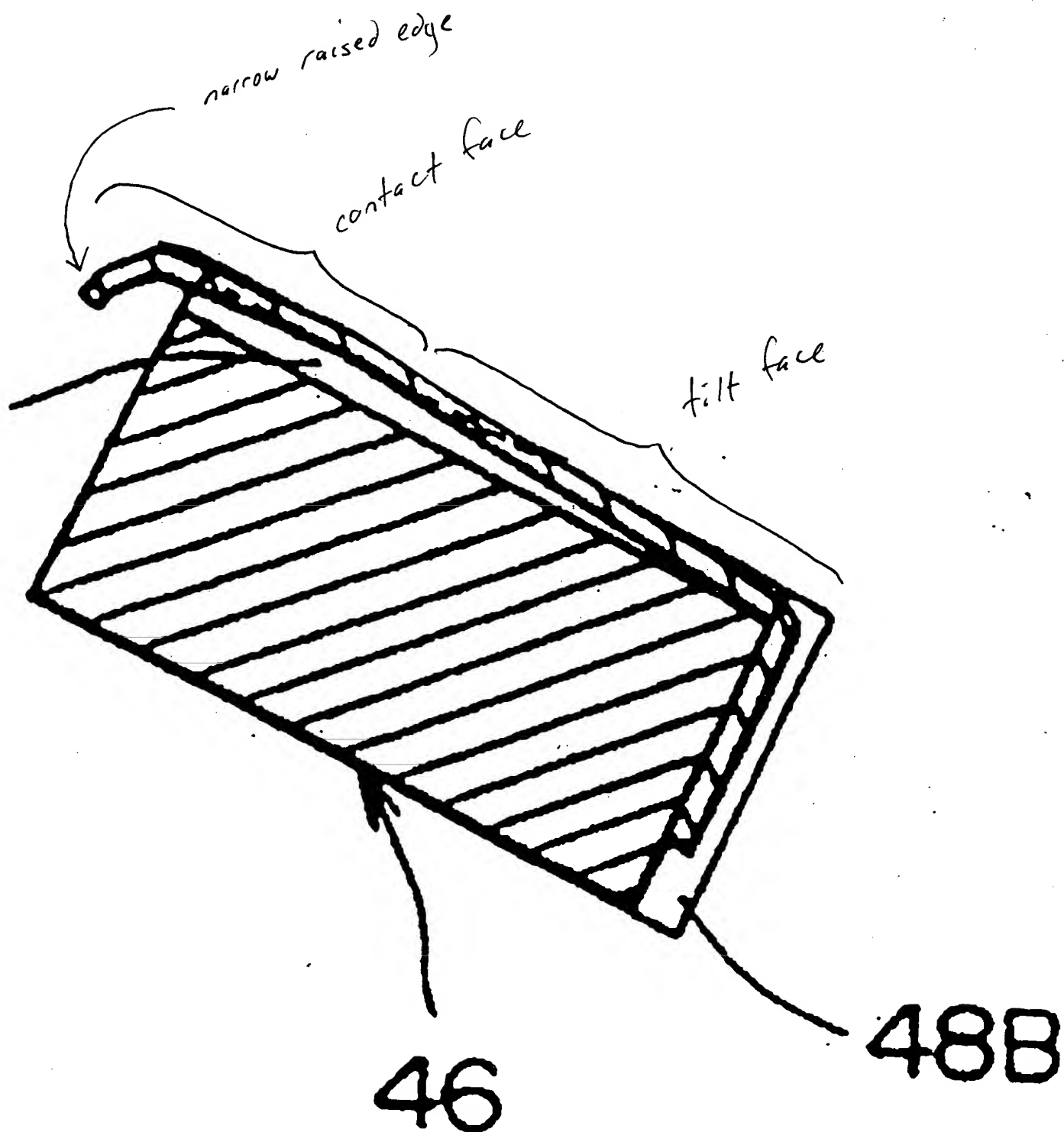
Claims 1, 6-8, 30, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,277,417 to Moritake et al.

Moritake teaches the synthetic resin tilt member (46) and a metal plate (see fig 5) which is elastic and surrounds the tilt member on upper and lower sides. The tilt member has a narrow raised edge which runs parallel to the longitudinal axis of the roller.

The Examiner has attached to the following page an enlarged copy of figure 5 of Moritake, to which reference was made in the preceding actions, and which unarguably teaches a tilt member with tilt face and contact face, wherein both the tilt face and the contact face will make contact with the roller during operation, and wherein the contact face is in the shape of a narrow raised edge.

It could also be put forth that the entire top surface of the tilt member is the tilt face, and the contact face is the length of the tilt surface from the point of contact with the roller to the point of termination as a narrow raised edge.

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Claims 1-4 and 30-33 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,318,716 to Okuda.

Okuda, in column 4, lines 62-64, discloses how the tilt member (43) with tilt face (17) in the shape of an edge is retracted from and advanced toward the roller, wherein means for advancing and retracting the tilt member comprise a rib (45a) and guide rail (shaft, 42a).

Based upon the large radius of arm (43) compared with the distance traversed by the tilt face (17), the movement is almost completely linear, against spring (44), which is equivalent to the linear distance traversed by the tilt face of the instant application.

Allowable Subject Matter

Claims 24 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

No spring bearer and spring pressure changing means were found in the art which act in conjunction with the spring and the tilt member as described in these claims. Namely, no spring bearer was found in such a context which is disposed slidably in an axial direction of the spring.

Response to Arguments

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Applicant's arguments filed 8/23/03 have been fully considered but they are not persuasive.

The claims describe a contact face in contact with the feed roller, the contact face being in the shape of a narrow raised edge...

The arguments claim that this feature is not shown in the art.

The Examiner repeats the discourse in the prior action pertaining to the fact that the word "face", in all pertinent definitions, is defined as a surface. An edge, in all pertinent representations, is best described as the border or end-point of a surface on one side or end. An "edge" is typically thought of as the failure of a surface to continue through space. The edge of a knife is where the front and back faces intersect. The edge of a plateau or mesa is where it drops off to a cliff vertical face.

In other words, the phrase "face being in the shape of a narrow raised edge" is somewhat of a contradiction in terms to begin with. In real 3-space, two surfaces are required for the formation of an edge, and the edge is not in any way capable of being interpreted as a surface in itself. In the event that an "edge" were filed down to turn it into a surface (face), such action would only result in the formation of a new surface, separated from the original surfaces by two new edges. If it were "rounded", that is, filed so that the intersection of the two surfaces no longer formed a definitive angle, the rounded surface would by definition fail to be an edge.

Thus, Applicant's assertion that the references do not teach narrow raised edges because the surfaces are planar, has no merit, because all of the surfaces of the instant application's invention are also planar, and the "edge" is simply the meeting point of two

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plane surfaces. The face that a cross section of a pad is rectangular does not preclude its having a narrow raised edge, especially if the pad is tilted at a 30 or 40-degree angle, as in the references, and one of the edges sits higher than all of the others. Thus, in each of the references, the downstream-portion of the tilt members are interpreted as "contact faces" and as they lead up to and contribute in forming the "edged" which are raised by the tilted nature of the tilt members to be higher than the other edges of the tilt members.

Certainly all of the references teach contact faces having an edge. It is hard to conceive of a face not having an edge, except of course when a would-be edge is rounded or filed down, and although in some of the references this is the case for one or two of the borders of the contact face, the other (non-rounded) borders of the respective faces are still edges and always will be.

Thus, for all intents and purposes, the Examiner has interpreted the *top* surfaces, inclusive of all surface area(s) which come(s) in contact with air, the roller, and/or the sheets, of each tilt member shown in the art, to be the "contact face" (or faces, plural, which combine to give a single face, in latter instance analogous to a human face). Each of them has at least one edge. The contact faces each have some portion which contacts the roller.

The Examiner repeats also the fact that *the claims never directly say that the edge alone contacts the roller*. It seems that this feature is the thrust of the arguments and the specification, although not claimed or directly argued. Although this is a new issue not yet raised in the prosecution of the instant application, the Examiner asserts

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that this too is to be found in the art (Figure 3 of Okuda, and by the flexible natures of the tilt members of Cahill and Watanabe, it surely cannot be said that the edges of the contact faces never contact the roller, be this action innate or inadvertent).

Applicant alleges throughout the arguments that none of Watanabe, Cahill, and Moritake teaches a tilt member having a contact face in contact with the sheet feed roller, and the contact face being in the shape of a narrow raised edge. The Examiner has shown that these three references, as does Okuda as well, teach, each reference by itself and all disclosed in combination with roller, pivotable stacking member, and various other elements, a tilt member having these features in said combination. The arguments are of a distracting nature, offering a liturgy on what the instant invention and the references entail, but never making a comparison therebetween, only alleging that the tilt members of the references do not have a contact face in contact with the sheet feed roller and the contact face being in the shape of a narrow raised edge. The reason for the allegation that the arguments are distracting is as follows.

The Examiner made exceedingly clear in the prior action, and in the foregoing arguments, that an edge cannot be a surface. The following definitions for the word "edge" were obtained from Merriam Webster's Collegiate Dictionary, Tenth Edition (1993).

Edge:

- 2: a: the line where an object or area begins or ends: BORDER;
- b: the narrow part adjacent to a border;
- c: a point near the beginning or the end;

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- 3: a line or line segment that is the intersection of two plane faces or two planes.

In light of the foregoing, and the fact that the Examiner included a paraphrased version of the foregoing in the Final Action, it is clear that the Examiner's discussion of why the element which Applicant is calling a "face... in the shape of an edge" or (as amended) a "face... in the shape of a narrow raised edge", is not and should not be considered capable of being described as such, either went unread by the writer of the response, or was ignored, as it is clear that while the ability of a face to actually be in the shape of an edge is a point of contention, surely this contention should be resolved before discussing how the art might or might not be interpreted as having such and such element and what it might be called.

As Applicant has utilized an exceedingly liberal interpretation of a word, so far as to approach the edge of the face of literary sense, the Examiner feels that the liberal interpretations by which the claims were rejected under the references pale in comparison.

Applicant is reminded that it is the duty of the Examiner to interpret all claim recitations broadly. In fact, the art should never have been discussed until Applicant explained how a face can have the shape of an edge, when a face is inherently a surface and "edge" is defined as the border of a surface, or the intersection of plural surfaces, and maybe in such explanation it would have become clear that the "edges" of the "faces" of the references are just as pertinent to the claims as the figures of the instant application. The addition of words like "raised" and "narrow" have accomplished

nothing, as from the outset of formulating the rejections the Examiner chose the highest edge of each tilt member, and the inherent narrowness in the term "edge".

The Examiner further fails to understand why Applicant is attempting to circumvent Cahill, Watanabe, Moritake, and Okuda via minor additions in the independent claims, when these independent claims, even as modified, read directly onto US 4,815,724 (figure 3), GB 2,195,614 (Figure 12), US 5,104,113 (figs 2 and 4), and US 5,573,338 (front page and fig 20) even more clearly than the independent claims read on those references used in rejections.

The references used in the rejections were used because they had more applicability to the dependent claims, and the Examiner did not wish to clutter the prosecution with dozens of rejections on each claim. The independent claims are so broad, even if one were to consider "face in the shape of a[n]... edge" to be a legitimate recitation, that Applicant or representative therefore must look outside the box, and attempt to interpret the claims broadly, before preparing a response. The invention of the instant application has a world of potential patentability available to it if it were just defined in a claim that didn't intend to encompass half of the tilt members in existence, and while there is a recitation claiming a "face" in the shape of an "edge", the art rejections are merely secondary deficiencies in the claims.

In the event that this action was speed read, the Examiner respectfully requests any reader to rewind to two pages back to the discussion of the deficiencies of "face... in the shape of an edge", so that another six-page discussion of the references is not submitted without being preceded by an amendment which makes an attempt to change

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the terminology of "face" and "edge" as put forth in the independent claims, or which utilizes a document, written in English of course, which lends light to the capability of a face/surface to be shaped as an "edge", when "edge" is inherently the border of a surface. In one aspect it is impossible to imagine any face *not* being, at some point, in the shape of an edge (thus the rejections under 35 U.S.C. 102), in any other aspect it is impossible to imagine a face being in the shape of an edge, because then it would *be* the edge, and therefore there would be no element of which the *edge* is a part. Now, if it were put forth that the face is in the shape of surfaces and an edge, or a surface and an edge, at lest the claim would make sense, but it would still read on the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel K Schlak whose telephone number is 703-305-0885. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306 - 4173. The fax phone number for the organization where this application or proceeding is assigned is 703-306-4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308 - 1113.


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SUPERVISORY PATENT EXAMINER
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